

ABSTRACT OF THE DISCLOSURE

A method of forming a dielectric layer suitable for use as the gate dielectric layer of a metal-oxide-semiconductor field effect transistor (MOSFET) includes oxidizing the surface of a silicon substrate, forming a metal layer over the oxidized surface, and reacting the metal with the oxidized surface to form a substantially intrinsic layer of silicon superjacent the substrate, wherein at least a portion of the silicon layer may be an epitaxial silicon layer, and a metal oxide layer superjacent the silicon layer. In a further aspect of the present invention, an integrated circuit includes a plurality of MOSFETs, wherein various ones of the plurality of transistors have metal oxide gate dielectric layers and substantially intrinsic silicon layers subjacent the metal oxide dielectric layers.